

TRADOC Human Engineering FOC

Assessment (1 of 10)

Task: ~~Model and Simulate the Entire Accessions Process:~~ Develop a simulation (or suite of simulations) to model the entire accessions process and Soldier life cycle.

Conditions: PC based residing in a virtual environment, that is Web based and distributive. Exportable with utilization and applicability from the strategic to operational levels. Accommodate multiple users with simultaneous inputs and outputs for all participating staff. Replicate higher, subordinate, and lateral commands and staffs to two levels for each (above and below).

Standard: Must be representative of the real world, valid and adaptable to all environmental variables, fluctuating market conditions - economic, demographic, political, and changing world situations. Programmable agents must react to anticipated world events and futuristic scenarios, allow information, data, and work flow creating dynamic expressions of products throughout the Army. Must incorporate Decision Support Systems, Constructive Simulation, Virtual Simulation, Live Simulation, and tied to Unit Manning requirements for a capabilities based force. Create an artificial labor market to use as a tool for decision makers to test potential resource allocation and planning options in a virtual environment, *ability to rapidly experiment with Courses of Action.*

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Assessment (2 of 10)

Task: Determine the Aptitude, Motivation, and Attrition Risk of the FFS: Develop a suite of pre-accession tests to determine applicant aptitude, motivation, and propensity to complete first term of service - use to identify, qualify, and categorize Future Force Soldiers.

Conditions: Administered at Military Entry Processing Stations (MEPS), Military Entrance Testing (MET) Sites, Recruiting Stations, WEB based and Point of Sale deployable, with applicable security and testing controls.

Standard: Will be interpreted and deployable by current personnel. Test administration and testing period must be less than three hours. Outputs must be understandable by all current personnel and produced in less than ten minutes. Must be as reliable as current disparate tests - ASVAB, AIM, RAP/ACE. Test must be valid and applicable for risk assessment and screening as market conditions change. These tests will be computer based, adaptive, and WEB deployable.

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Assessment (3 of 10)

Task: Determine the Market Availability of FFS. Identify the potential of the current and future youth market to supply applicants with the desired characteristics of the Future Force Soldier.

Conditions: Within the current Prime youth recruitable market, applicable in all economic conditions, across all racial, ethnic, and socio-economic backgrounds. Given current quality requirements (HSDG, AFQT>30, citizenship, moral, health, etc.) and multiple FFS scenarios in both voluntary recruiting environment and a selective service environment, in peacetime and in war.

Standard: Compatible with the Future Force Soldier Model. Assess the ability and risks to meet the quality marks of the FFS. Dimensions will include but are not limited to intelligence, quantity by race and gender, regions, health, morality, physical fitness, and citizenship. Ability to forecast ten years out. Recommend policies to expand the market and reduce the risk in both the voluntary and selective service environments.

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Task: Screen for a Disqualifying Condition of Asthma in the FFS: Develop a pre-accession asthma screening test to objectively determine whether or not an Army applicant has, or had, a disqualifying condition of asthma.

Conditions: Given at a Military Entrance Processing Station (MEPS), Recruiting Station, or by an individual recruiter using Point of Sale in a home or office environment.

Standard: Non-invasive, administered and interpreted in less than five minutes by either medical or non-medical personnel - detect 90% of all non-disclosed, disqualifying asthmatic conditions with a sensitivity and specificity greater than 90% (highly accurate with a low false positive rate). Require minimal additional testing equipment with low cost per use. In accordance with all existing DOD and Army regulations.

FOC 13-1 B. (4)

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Task: Screen for disqualifying Orthopedic Conditions of the FFS: Develop an orthopedic screening test to detect and objectively assess disqualifying orthopedic conditions.

Conditions: Given at MEPS by a qualified physician or other qualified medical personnel, to be used in conjunction with all current screening procedures.

Standard: Non-invasive, less than two minutes - detecting 90% of all non-disclosed, disqualifying orthopedic conditions, with a sensitivity and specificity greater than 90% (highly accurate with a low false positive rate). Require minimal additional testing equipment with low cost per use. In accordance with all existing DOD and Army regulations.

FOC 13-1 B. (4)

TRADOC Human Engineering FOC Assessment (6 of 10)

Task: Screen for Disqualifying Psychological Conditions in the FFS: Develop a psychological screening test to detect and objectively assess disqualifying psychological conditions.

Conditions: Given at MEPS by a qualified physician or other qualified medical personnel.

Standard: Non-invasive, less than twenty minutes - detecting 90% of all non-disclosed, disqualifying psychological conditions, with a sensitivity and specificity greater than 90% (highly accurate with a low false positive rate). . In accordance with all existing DOD and Army regulations. Require minimal additional testing equipment with low cost per use.

FOC 13-1 B. (4)

TRADOC Human Engineering FOC Assessment (7 of 10)

Task: Improve the ability of the FFS to Multi-Task: Enhance the ability of leaders and Soldiers to conduct simultaneous multiple tasks during operational mission executions - reconnaissance, threat engagement, resupply, and casualty evacuation.

Conditions: Operate multiple robots/UAVs simultaneously with minimal control or interaction, utilizing a man-machine interface to assist. Conduct tactical operations under all weather conditions, during continuous 24 hour operations in complex terrain on noncontiguous battlefields under the demands of full spectrum operations.

Standard: Ability to conduct multiple tasks without degradation in any single task. Reduce required training for robot/UAV control. Reduce actions and pre-planning workload for required interventions. Increase soldier-robot/UAV ratio from 1:1 to at least 1:4.

FOC 13-1 B. (1) (13)

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Task: Increase FFS Cognitive Functions While Under Stress: Enhance Soldier and leader cognitive functions while under high stress; judgement, initiative, adaptability, and learning.

Conditions: Subject to physical and mental stress while participating in tactical operations on a distributed noncontiguous battlefield under the demands of full spectrum 24 hour operations in all weather conditions.

Standard: Increase Soldier and leader cognitive functions, while under high stress, to the same levels when not subjected to stress. Perform all battlefield tasks to standard while subjected to stressful conditions. For example: acquire, identify, engage, and destroy the same number of enemy targets (and not engage the same number of friendly targets) while under stress as when not under stress.

FOC 13-1 B. (3) (4)

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Task: Ability of the FFS to simultaneously process multiple sensory inputs: Receive and process multiple and disparate simultaneous sensory information (visual, auditory, tactile).

Conditions: Subject to multi-sensory inputs while participating in tactical operations on a distributed noncontiguous battlefield under the demands of full spectrum 24 hour operations in all weather conditions.

Standard: Without degradation, continue to perform primary task while simultaneously receiving multiple sensory inputs and then taking appropriate action.

FOC 13-1 B. (1)

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Task: [*What is the operational capability needed beyond today.*]

Conditions: [*Describe a projected demonstration of this capability – with constraints, i.e. all weather, full spectrum future operating environment*]

Standard: [*Operational Metrics – drawn from 525-66 or O&O*]